

REMARKS

Formal entry therefor of the above-made preliminary amendments to claims 1, 21 and 22 is respectfully requested. Claim 1 was amended to further define the subject matter covered by original claim 1 in line with the subject matter of claims 2-4 as well as that also featured with regard to claims 20-22 in connection with the last subparagraphs thereof. The amendments made to claims 21 and 22 are to remove an obvious informality discovered therein. Namely, the expression "a scanning signal line" was inserted in each of those claims in order to avoid any question of proper antecedent basis regarding the referenced expression "the scanning signal line" mentioned elsewhere in the body of those claims. Discussion will now turn to the outstanding restriction requirement.

Original claims 1-22, according to the outstanding restriction requirement, were divided into three (3) patentably distinct groups of claims. Based on our review of this restriction requirement, applicants, through their undersigned representative, are accordingly traversing the same and, therefore, reconsideration and withdrawal of the same is respectfully requested.

In reviewing the subject matter covered by all of the originally presented claims, as now amended, it is noted that they all are directed to a display device featuring a thin film transistor (TFT) including the structural particularities thereof. With regard to the three (3) groupings, as shown on page 2 of the outstanding Office Action, it is noted that the claims of Group I (including claims 1-4) not only feature the construction of a thin film transistor but, also, further define the construction of the scanning signal line to which the gate electrode of the TFT is connected in a manner consistent with that in the example embodiments shown in Figs. 1, 8, 10 and 15 of the drawings, although not limited thereto. In Fig. 4 of the drawings, which

relates to the manufacture of an embodiment such as that shown in Fig. 1 of the drawings, the scanning signal line GL is comprised of a lower metal layer g1 (e.g., made of Chromium) and an upper layer g2 (e.g., made of aluminum). As can be seen from this, the constructed multilayered scanning signal line is such that an upper surface thereof has a width that is smaller than that of the lower surface of the scanning line. Such featured aspects directed to the construction of the scanning signal line of the display device are specifically featured in Group I (including claims 1-4) and, also, with regard to claims 20-22, which were included in Group II, in the Office Action.

Regarding Group II (including claims 5-13 and 20-22), the invention therein further defines the construction of both the drain electrode and source electrode of the TFT in a manner consistent with the showings in the example embodiments of the present application, although not limited thereto. In that regard, the drain and source electrodes are not only defined as comprising an aluminum film (the drain and source electrodes may include a composite film layer having an aluminum film as a component part thereof) or, more particularly, as comprising "a high melting point metal film and an aluminum film formed over the high melting point metal film," but, moreover, the invention further calls for a particular spacing distance between the drain electrode and source electrode. The particularities of the spacing distances are specifically featured in claims 5 and 10-13 of Group I, claims 14 and 19 of Group II (should be Group III), and claims 20 and 22 of Group II. Claims 6-9 of Group II, it is noted, do call for both the drain electrode and the source electrode to be comprised of a composite layer including a high melting point metal film and an aluminum film formed thereover with regard to the TFT structure. However, the particularities regarding the spacing distance between that of the drain electrode and

source electrode and that pertaining to the relative widths between the lower and upper surfaces of the scanning signal line are not specifically called for in claims 6-9.

Further, while additional featured aspects are called for in claims 14-19 and, in particular, with regard to the construction of the "gate electrode", claims 14 and 19 of that group also call for the specific relative spacing distances of the upper and lower surfaces between that of the source and drain electrodes of the TFT, similarly as that called for in claims 5, 10-13, 20 and 22, with regard to the Group II claims. It is clearly evident, therefore, that considerable overlapping exists between the subject matter covered by the claims of all three of the groups.

Even if a case of patentable distinction can be made in connection with dividing original claims 1-22 into a number of patentably distinct groupings, including as that set forth on page 2 of the Office Action, there is a substantial commonality regarding various featured aspects thereof, as was shown hereinabove which, clearly, would lead to a co-extensiveness in the state-of-the-art searching. That is, the state-of-the-art searching performed on the invention according to the claims of any one of the presently divided groups would highly likely overlap the search area of all other ones. Therefore, the Examiner is urged to maintain both groups of claims as a single grouping for purposes of examination. In view of the substantial commonality regarding the subject matter pertaining to all three listed groups, there will be no serious burden, applicants submit, on the part of the Examiner, to maintain all of the presently pending claims as a single grouping for purposes of examination. According to U.S. Patent and Trademark Practice and as set forth in MPEP §803, :

"[I]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits,

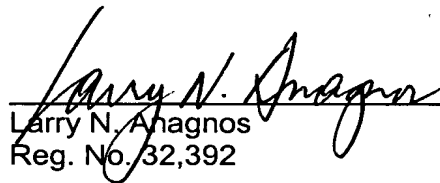
even though it includes claims to distinct or independent invention."

Applicants will, also, be put under a serious burden in terms of both time and cost if they are required to file an additional set of applications in order to obtain patent protection, also, for the withdrawn claims. Accordingly, for the above-noted reasons, reconsideration and withdrawal of the formal restriction requirement is respectfully requested.

Although, applicants submit, the restriction requirement should be withdrawn for reasons such as that given above, in order to be completely responsive to the Examiner's requirement, applicants provisionally elect, **with traverse**, Group I (including claims 1-4) to be examined on the merits.

To the extent necessary, applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (501.26071CC8), and please credit any excess fees to such deposit account.

Respectfully submitted,
ANTONELLI, TERRY, STOUT & KRAUS, LLP



Larry N. Anagnos
Reg. No. 32,392

LNA/dks
(703) 312-6600

Marked-Up Version Showing Changes Made**IN THE CLAIMS:**

Please **amend** claims 1, 21 and 22, to read as follows:

1. (Amended) A display device comprising:

a substrate;

a scanning signal line formed over the substrate;

an insulating film formed over the substrate and the scanning signal line;

an image signal line;

a pixel electrode; and

a thin film transistor comprising a gate electrode ~~formed between the substrate and the insulating film~~ connected to the scanning signal line, a semiconductor film formed over the insulating film, a drain electrode electrically connected to the image signal line, and a source electrode electrically connected to the pixel electrode,

wherein the ~~gate electrode~~ scanning signal line comprises a first metal film and an aluminum film, the aluminum film being dimensioned to cover a plan view area of a principal surface of the substrate larger than an area covered by the semiconductor film formed over the first metal film, the aluminum film having an upper surface with a width that is smaller than a width of a lower surface of the first metal film.

21. (Amended) A display device comprising:

a substrate;

a scanning signal line;

an insulating film formed over the substrate;

an image signal line;

a pixel electrode; and

a thin film transistor comprising a gate electrode connected to the scanning signal line and formed between the substrate and the insulating film, a semiconductor film formed over the insulating film, a drain electrode electrically connected to the image signal line, and a source electrode electrically connected to the pixel electrode,

wherein the drain electrode and the source electrode comprise a high melting point metal film and an aluminum film formed over the high melting point metal film, and

wherein the gate electrode and the scanning signal line comprise an aluminum film, and the scanning signal line has an upper surface with a width that is smaller than a width of a lower surface of the scanning signal line.

22. (Amended) A display device comprising:

a substrate;

a scanning signal line;

an insulating film formed over the substrate;

an image signal line;

a pixel electrode; and

a thin film transistor comprising a gate electrode connected to the scanning

signal line and formed between the substrate and the insulating film, a semiconductor film formed over the insulating film, a drain electrode electrically connected to the image signal line, and a source electrode electrically connected to the pixel electrode,

wherein the drain electrode and the source electrode comprise a high melting point metal film and an aluminum film formed over the high melting point metal film, and the high melting point metal film and the aluminum film of both the source and drain electrodes are disposed such that a spacing between a lower surface of the high melting point metal film of the drain electrode and a lower surface of the high melting point metal film of the source electrode over the semiconductor film is smaller than a spacing between an upper surface of the aluminum film of the drain electrode and an upper surface of the aluminum film of the source electrode over the semiconductor film, and

wherein the gate electrode and the scanning signal line comprise an aluminum film, and the scanning signal line having an upper surface with a width that is smaller than a width of a lower surface of the scanning signal line.